HANDHELD LASER
SCANNER

Xhorse® 3D

Xscanner 3D

Handheld Laser Scanner V1.1

Start Rapid Scan Modeling

Precise and Fast
Your Ideal 3D Scanner

EXPLORE THE
BOUNDARY OF CREATION

ABOUT US

SHENZHEN XHORSE ELECTRONICS CO., LTD

Founded in 2010, headquartered in Shenzhen Nanshan District Liuxiandong, Xhorse has been named National High-tech Enterprise specializing in R&D, manufacturing, sales, and service. Its products cover multiple fields, including precision machinery, automotive electronics, industrial automation, chip design, and optical sensing. As a recognized 'little giant' enterprise, its products reach customers in over 170 countries and regions.

Driven by continuous R&D investment and a high-level innovative team, Xhorse takes a market-oriented approach and keeps exploring new industries and developing new products, and has consistently increased its R&D investment by over 50% annually. 65% of the team members are graduates from 985/211 universities, and 45% hold master's degrees or higher.

Xhorse places great importance on independent R&D and innovation, possessing a complete system of intellectual property rights and quality management. By the end of April 2024, Xhorse has applied for over 600 certificates of patents, Software Copyright, and Layout-designs of Integrated Circuits and more than 90 registered trademarks in more than 20 countries.

Branches & Affiliates

Zhejiang Yongyuan Technology Co., Ltd
Yuyao Production Base

Zhejiang Unionx Electric Machinery Technology Co., Ltd
Yuyao Sanqi Robot Town

Ningbo

Shenzhen Xhorse Electronics Co., Ltd
R&D Headquarters

Shenzhen Xhorse Electronics Co., Ltd
Baoan Branch
Shenzhen Production Base

Zhejiang Yongyuan Technology Co., Ltd
Shenzhen Branch
Automation R&D Center

Shenzhen

Shenzhen Xhorse Electronics Co., Ltd

National High-tech Enterprise
National "Little Giant Company"
Shenzhen Specialized and Special New Enterprise
Shenzhen Nanshan District High-Level Innovative Talent Training Base

Zhejiang Yongyuan Technology Co., Ltd

National High-tech Enterprise
Yuyao Enterprise Engineering (Technology) Center
Yuyao City Intelligent Manufacturing Benchmark Enterprise
Yuyao City Innovation and Growth Demonstration Enterprise
Top 10 "Growth Stars" Enterprises with High-Quality Development in Yuyao City's Manufacturing Industry

Intellectual Property Rights Trademarks and Certification

Possess complete independent intellectual property rights system and certification system

IATF16949

ISO 9001:2000 SQCC
ISO9001:2000版
质量体系认证

Intelligent Production Base


On-Site Photo

Zhejiang Yongyuan Production Base spans 10,000m², with a total building area of 20,000m². The facility is equipped with modern, efficient, and standardized workshops, along with advanced production equipment. It features state-of-the-art CNC production lines, automated SMT lines, automated injection molding lines, and automated assembly lines. By integrating cutting-edge artificial intelligence and advanced automation technologies, the base has optimized its production processes for high efficiency and automation, establishing a comprehensive intelligent manufacturing and process workflow.

● Automated Equipment Assembly Production Line


On-Site Photo

● CNC Machining Center Production Line


On-Site Photo


On-Site Photo


On-Site Photo

● Injection Molding Machine Production Lin

● SMT Machine Production Line

Zhejiang Unionx Electric Machinery Intelligent Production Base represents an investment of 400 million RMB, covering over 40，0000m² with a building area exceeding 80,000m². The base will focus on the construction of a R&D center, modern production workshops, and advanced logistics and warehousing facilities, all centered around intelligent manufacturing. Upon completion and commencement of operations, the facility will primarily be dedicated to the research, development, and manufacturing of equipment for multi-axis motion control, binocular vision and image recognition, and automated manufacturing solutions.


On-Site Photo


On-Site Photo

Xscanner 3D

Handheld Laser Scanner

Xscanner 3D is a portable, professional-grade blue-line laser 3D scanner equipped with a powerful algorithm engine and high-definition camera modules. It features 7 pairs of intersecting laser lines and 1 high-power laser line, offering dual scanning modes with an impressive scan rate of up to 420,000 scans per second. The scanner boasts exceptional anti-interference performance, with a scanning accuracy of up to 0.05 mm and a resolution of up to 0.05 mm. Despite its capabilities, it remains lightweight and compact, weighing just 425g.

The self-developed Xscanner 3D software enables millisecond-level 3D modeling previews and provides fast post-processing functions. With built-in intelligent guidance, even beginners can easily enjoy high-quality 3D scanning. Scan results can be exported in formats like Xpro, PLY, TXT, STL, OFF, OBJ, seamlessly integrating with mainstream 3D inspection and design software.

As an innovative laser scanning solution, Xscanner 3D is perfectly suited for a wide range of applications, including automotive modification and repair, industrial design, healthcare, and education, catering to the professional needs of designers, engineers, and enthusiasts alike.

Blue Laser
7×2+1 lines

Eye Safety
Class I

Accuracy
Up to 0.05 mm

Resolution
Up to 0.05 mm

Scan Rate
420000 measurements/s

Software
Xscanner 3D

Single Frame Scan Area
Up to 400×400 mm

Weight
425g

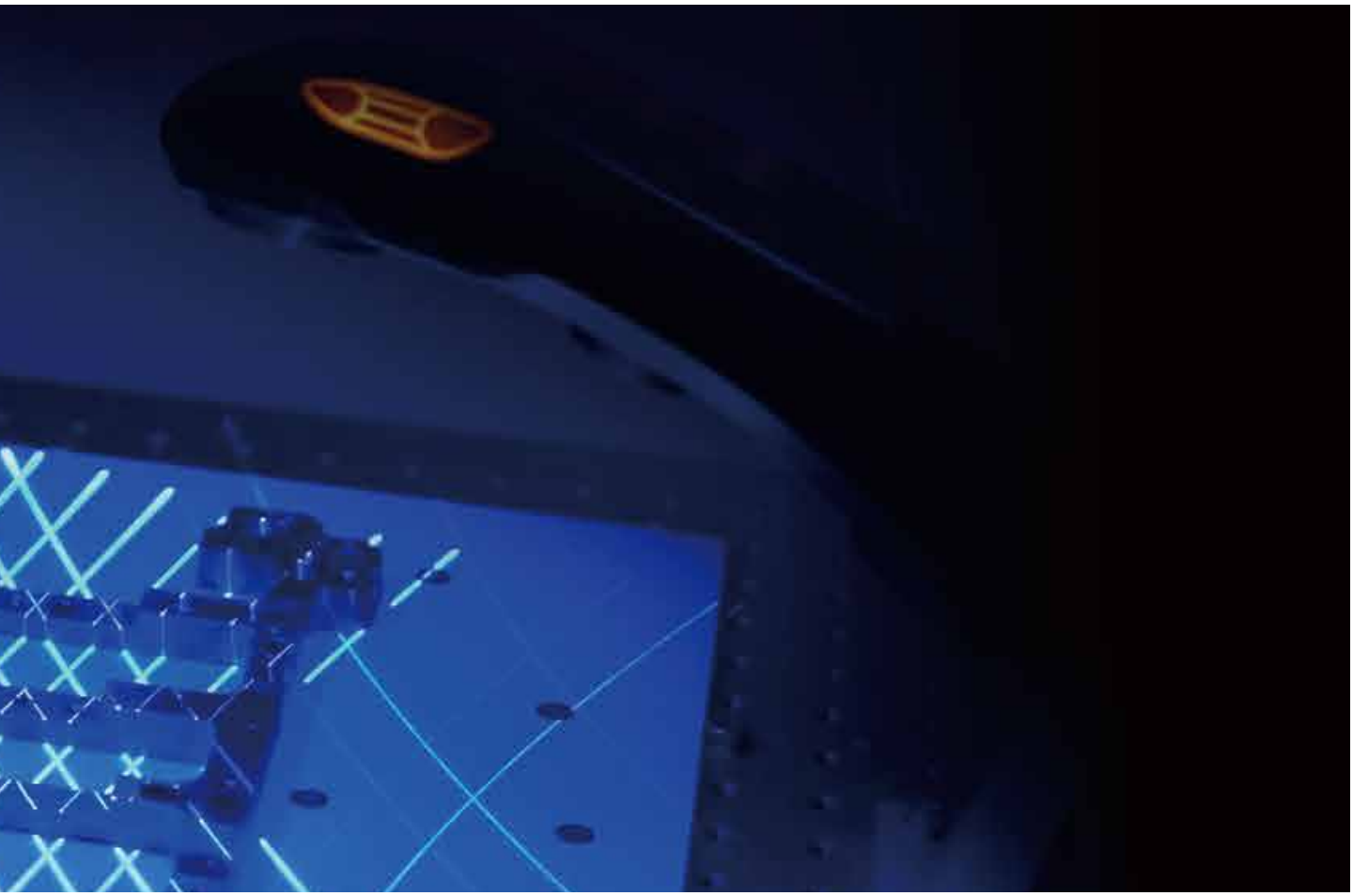
Start Rapid Scan Modeling

HIGHLIGHTS

Up to
420,000
measurements/s

7×2+1 Blue Laser Array
Effortless High-Precision Capture

Powered by blue laser technology with exceptional anti-interference capabilities, the Xscanner 3D delivers up to 420,000 measurements per second with a maximum single-frame scan area of 400 × 400 mm, ensuring lightning-fast efficiency. Equipped with 7 pairs of intersecting laser lines and 1 high-power laser line, it offers dual scanning modes that seamlessly switch to meet diverse needs — capturing ultra-fine details at high speed while accurately reconstructing deep holes and complex grooves.



7 hyperfine blue laser crosses
Capture exceptional detail rapidly

Ultra-fast Mode

1 1 high-power blue laser line
Scanning complex surfaces and deep holes

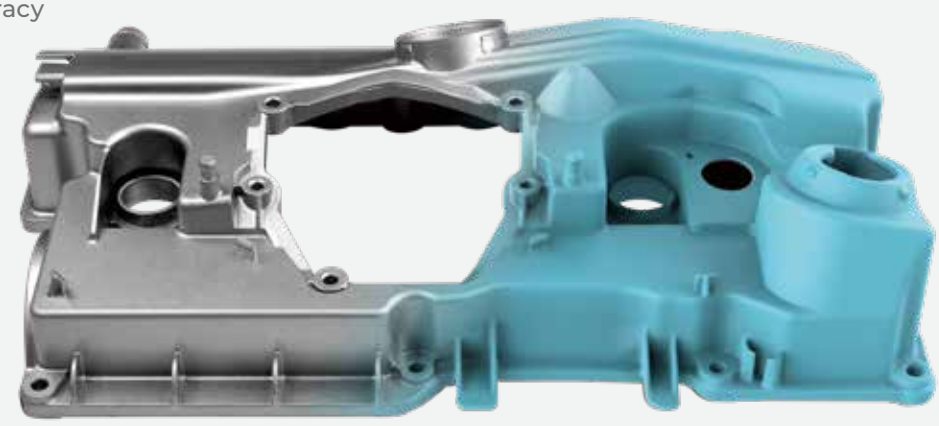
Deep hole Mode

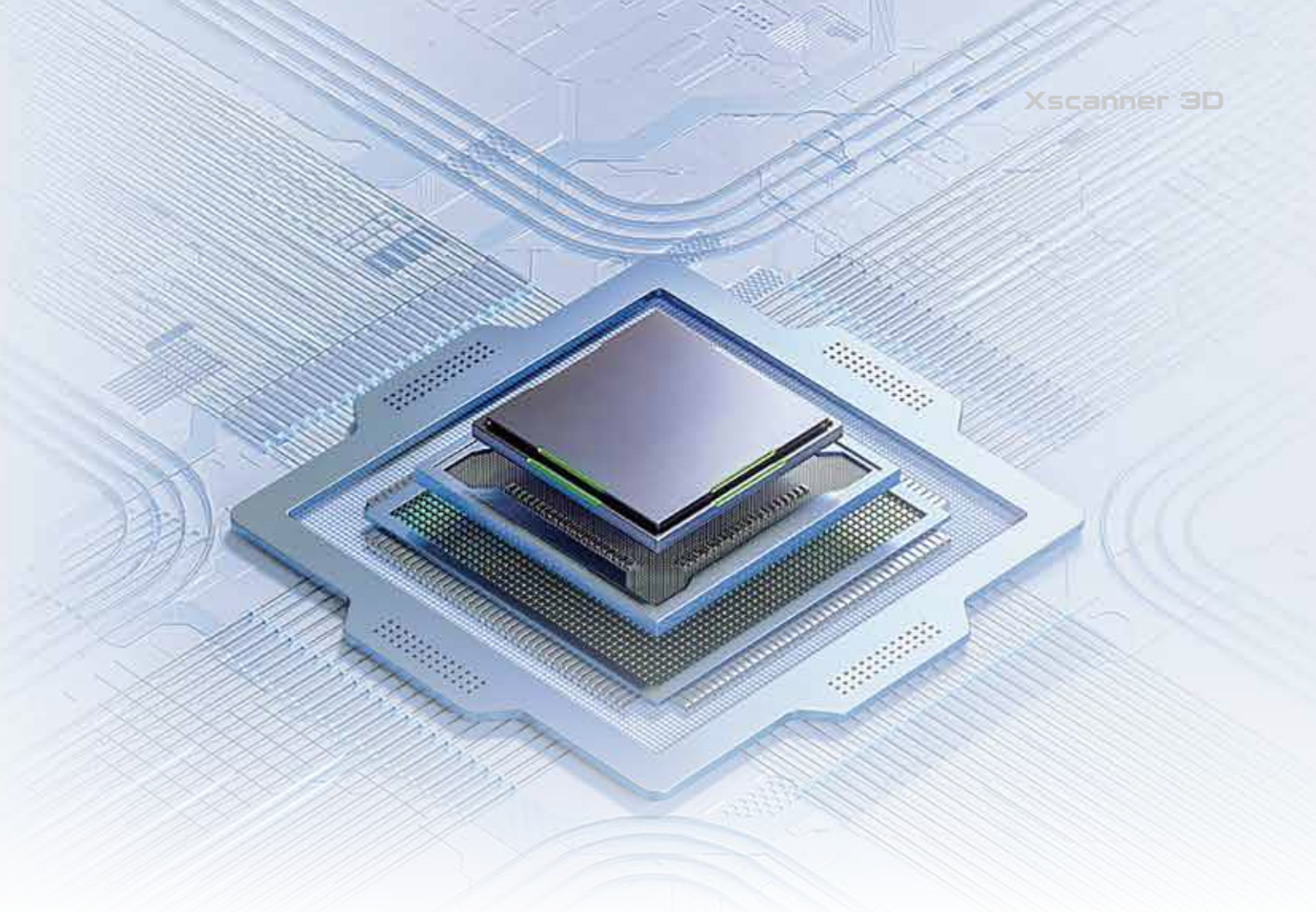
Ultra-High Precision
Unleashing Infinite Possibilities in 3D

Equipped with a powerful algorithm engine and high-definition camera modules, Xscanner 3D recreates reality with exceptional quality. With a scanning accuracy and resolution of up to 0.05 mm, it captures even the finest details. 20 ring-shaped flash LEDs effectively eliminate shadows, ensuring high-quality point cloud data. The high-precision calibration board, produced using advanced lithographic printing and rigorously tested, guarantees optimal scanner accuracy. Whether scanning large machinery or intricate components, every surface detail is rendered with stunning clarity.

0.05mm
Maximum Resolution

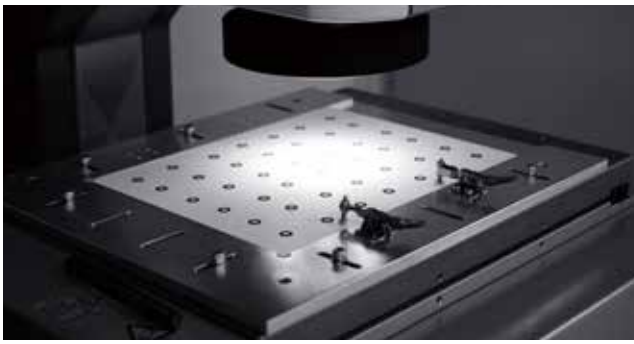
0.05mm
Maximum Accuracy





Intelligent Algorithms
Dynamic Tracking Technology

The scanner leverages a smart marker point matching algorithm, combining feature extraction with binocular vision processing to achieve fast and precise frame-by-frame matching. This technology effectively eliminates mismatches caused by rapid movements or shaking, ensuring high stability and accuracy even in dynamic environments.



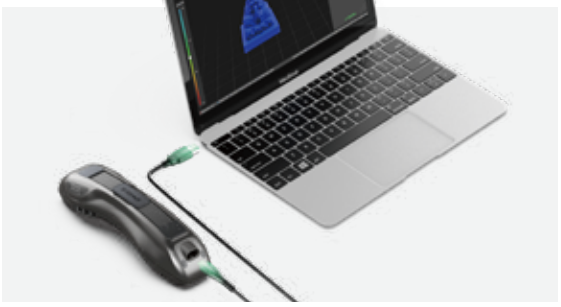
Lightweight and Portable
A Mobile Workstation in Your Hand

Designed for portability, Xscanner 3D features a 239 × 66 × 44 mm compact structure and weighs just 425 g. Its streamlined body reflects sleek technological aesthetics, offering a comfortable grip. Multifunctional buttons enable one-handed control, allowing users to switch scan modes, adjust viewing angles, and modify exposure times without needing to return to the computer. The included premium shockproof carrying case ensures safe transport, enabling limitless precision scanning anytime, anywhere.

About **0.8** bottles
of mineral water

Zero Learning Curve
Smooth 3D Scanning Experience

With plug-and-play USB connectivity and a wizard-style calibration process, setup is lightning-fast, letting users dive into high-quality 3D scanning in no time. A distance indicator light provides real-time guidance, helping users adjust the scanning distance for optimal data capture with ease.



Robotic Arm Application Diagram

Tripod Application Diagram

Expandable Interface Unlock New Productivity

The back of the scanner features 4 screw holes, allowing easy mounting to quick-release plates, tripods, or robotic arms. This opens up endless possibilities for DIY projects, batch scanning, or custom production line integrations.

3D Scanning and Processing Software

Xscanner 3D

Xscanner 3D is a software solution specifically developed for the Xhorse scanner.

It intuitively and accurately transforms scanned objects into high-resolution 3D models, offering fast data post-processing capabilities. The software supports exporting files in multiple formats, including Xpro, PLY, TXT, STL, OFF, and OBJ, optimizing user workflows for a smoother cross-platform experience.

Real-Time Triangular Meshing What You See Is What You Get

Powered by real-time HASH meshing technology, the software employs a dynamic topology optimization algorithm to achieve millisecond-level 3D modeling. This ensures sharp details and lifelike results, while preserving high-precision textures and significantly reducing hardware load and file size. Users can efficiently preview scans and easily adjust angles as needed.

Smart Guidance From Beginner to Expert in No Time

The user-friendly interface is designed with intuitive navigation and clear guidance. An information panel provides detailed explanations for each function, while a wizard-style simplified calibration process completes setup in just 1–2 minutes. Even beginners can quickly master the software, enjoying a seamless, high-quality 3D scanning experience.

Comprehensive Post-Processing Tools

The software includes a built-in data post-processing module with point cloud editing features like outlier removal and plane detection for quick and easy cleanup. It also supports surface reconstruction and 3D mesh editing, making tasks like hole filling and mesh simplification effortless. For multi-scan projects, the software enables 3D model alignment through Xpro file stitching, resulting in complete, unified models.

Essential Measurement Functions

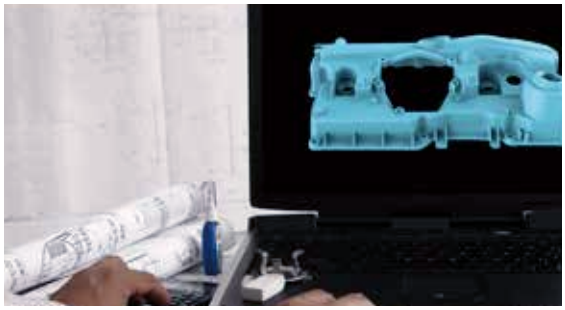
The integrated data measurement module offers distance measurement and geometric fitting functions for standard shapes, catering to basic measurement needs.

Seamless Ecosystem Multi-Format Compatibility

Scan results can be exported in various formats, including Xpro, PLY, TXT, STL, OFF, and OBJ, ensuring smooth integration with mainstream 3D inspection and design software. This compatibility streamlines subsequent workflows and enhances cross-platform efficiency. The proprietary Xpro engineering format stands out by supporting post-processing edits and incremental scanning, allowing users to pause and resume projects at any time to capture additional details without losing previous progress.

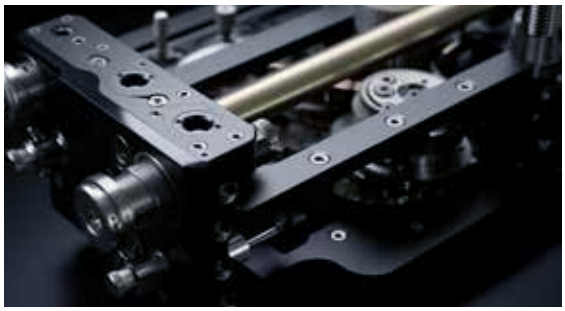
APPLICABLE AREAS

As a professional and portable 3D scanning device, Xscanner 3D excels with its high precision, rapid modeling capabilities, and powerful anti-interference performance. It empowers quick prototype iterations and old part restoration, significantly shortening development cycles and becoming a core tool for reverse engineering and innovative design across industries.



Automotive Modification & Repair

Effortlessly scan complex surfaces, such as engine bays and body structures, to quickly compare and correct deviations, reducing human measurement errors. Whether for custom part development or damage analysis of accident vehicles, Xscanner 3D delivers efficient and accurate solutions.



Industrial Design

Leverage non-contact scanning technology for reverse engineering mechanical components, mold accuracy checks, and assembly interference analysis. Generate editable models quickly and seamlessly integrate with CAM workflows, significantly boosting design and production efficiency.

Healthcare

Widely used in fields like dental implants and orthodontics, it pairs with 3D printing to produce prosthetics, orthotic devices, and custom medical supports — lowering costs while improving fit and comfort.

Education

Provides a cost-effective, high-precision 3D data acquisition solution for engineering teaching models, biological specimen digitization, and mechanical motion simulation analysis, fostering visual learning and interdisciplinary research.

Hobbies & Design

With a streamlined operation process and excellent cost-performance ratio, Xscanner 3D is ideal for figure model replication, custom home design, and personalized 3D printing. It turns creative ideas into tangible objects, meeting the needs of creators and hobbyists, and is widely used in maker spaces and 3D studios.

Cultural Heritage Preservation

Using non-invasive scanning technology, it facilitates the digital restoration of sculptures and artifacts, the creation of virtual museums, and the development of artistic derivatives. This prevents damage from physical contact, preserves intricate heritage details, and contributes to cultural conservation and innovation.

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SCANNER

Scanning Model Demonstration

EXTREME
HORSE POWER

Complex Surfaces Perfectly Unveiled

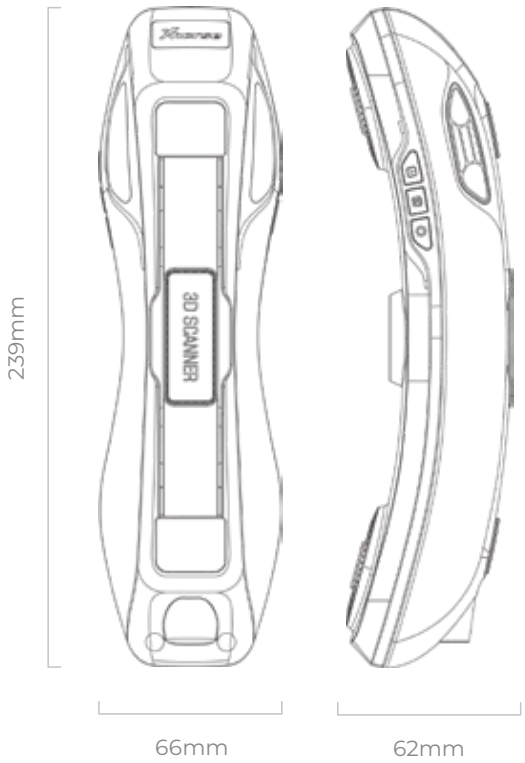
SYSTEM REQUIREMENTS

CPU	Intel Core i7-9850H or higher
Graphics Card	NVIDIA GPU 8GB or higher
Memory	32GB DDR4 or higher
Operating System	Recommended WIN10 or above
Transfer Requirement	USB 3.0

TECHNICAL SPECIFICATIONS

Laser Light Source	7 pairs of laser beams + 1 laser beam
Laser Category	Class I (eye-safe)
Measurement Rate	420000 measurements/s
Scanning Accuracy	Up to 0.05mm*
Scanning Resolution	Up to 0.05mm
Image Resolution	1920*1200
Datum Distance	350mm
Scanning Area	Up to 400mm x 400mm (single frame)
Weight	425g
Dimensions	239*66*62mm
Output Format	Xpro, ply, txt, stl, off, obj
Transfer Method	USB 3.0
Operating Temperature	-20°C~40°C
Operating Humidity	10%~90% (non-condensing)

*Accuracy is 0.05mm when measuring distances not exceeding 200mm.



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